



Library System

SUBMITTED BY :

- 1-Shimaa Hamdy
- 2-Omnia Lashen
- 3-Aya Mahfouz
- 4-Nada Osama
- 5-Salma Hossam

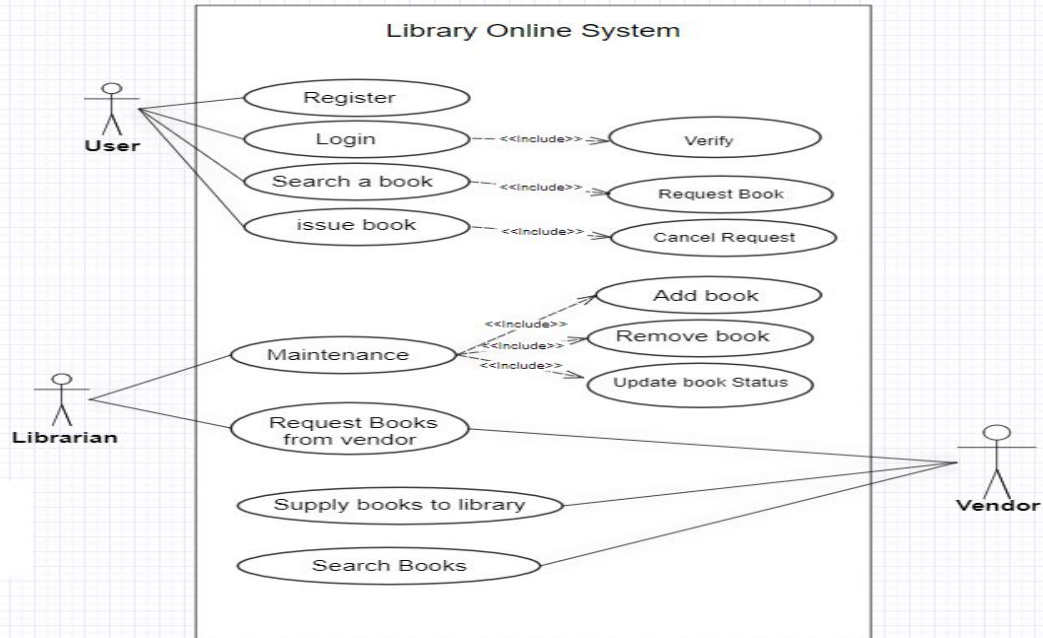




Diagrams

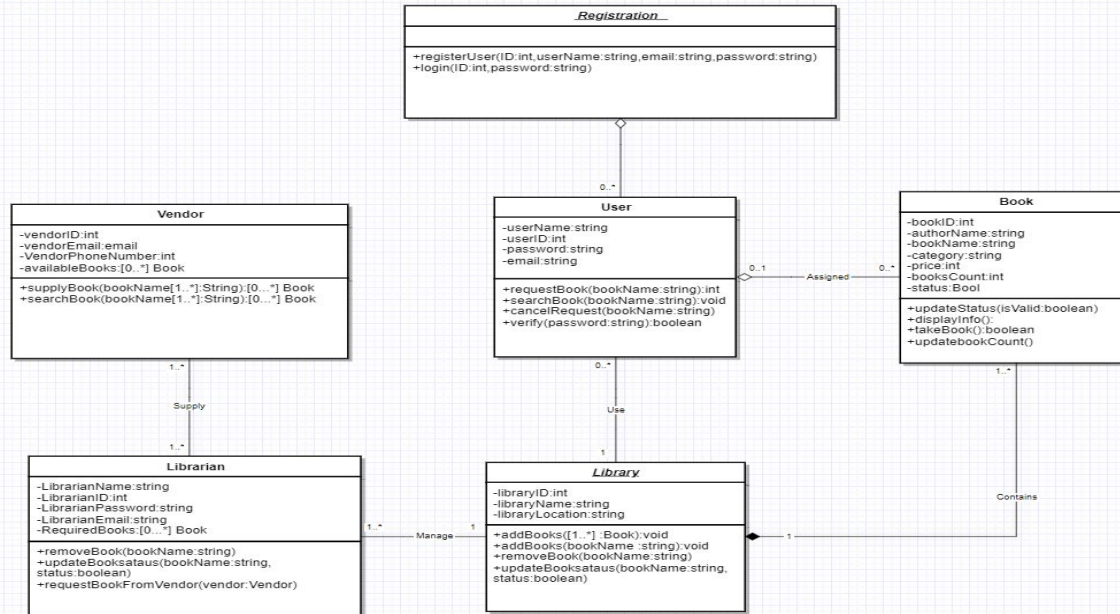
Usecase Diagram

Gliffy / Usecase Diagram, v33



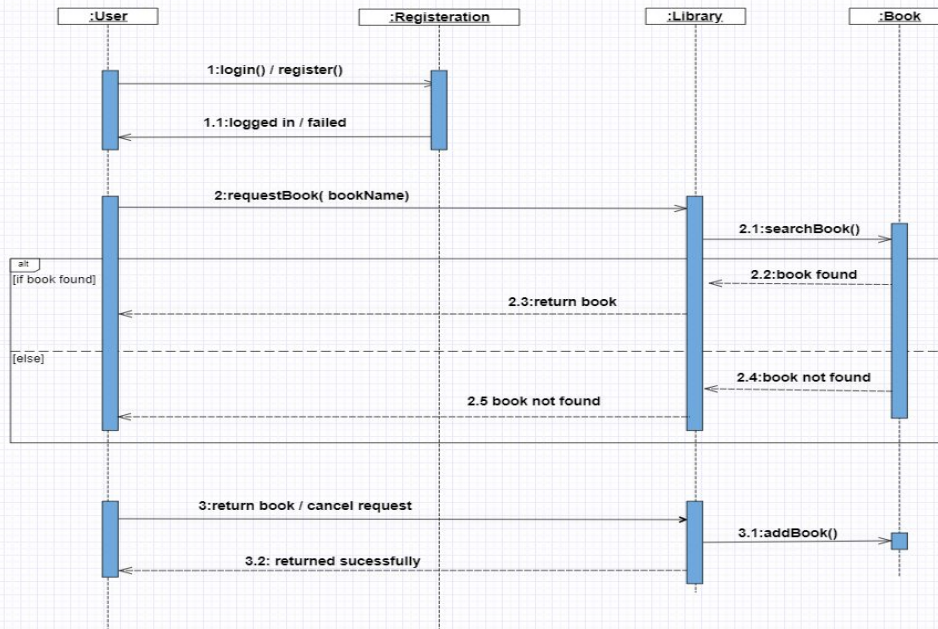
Class Diagram

Gliffy / class diagram, v32



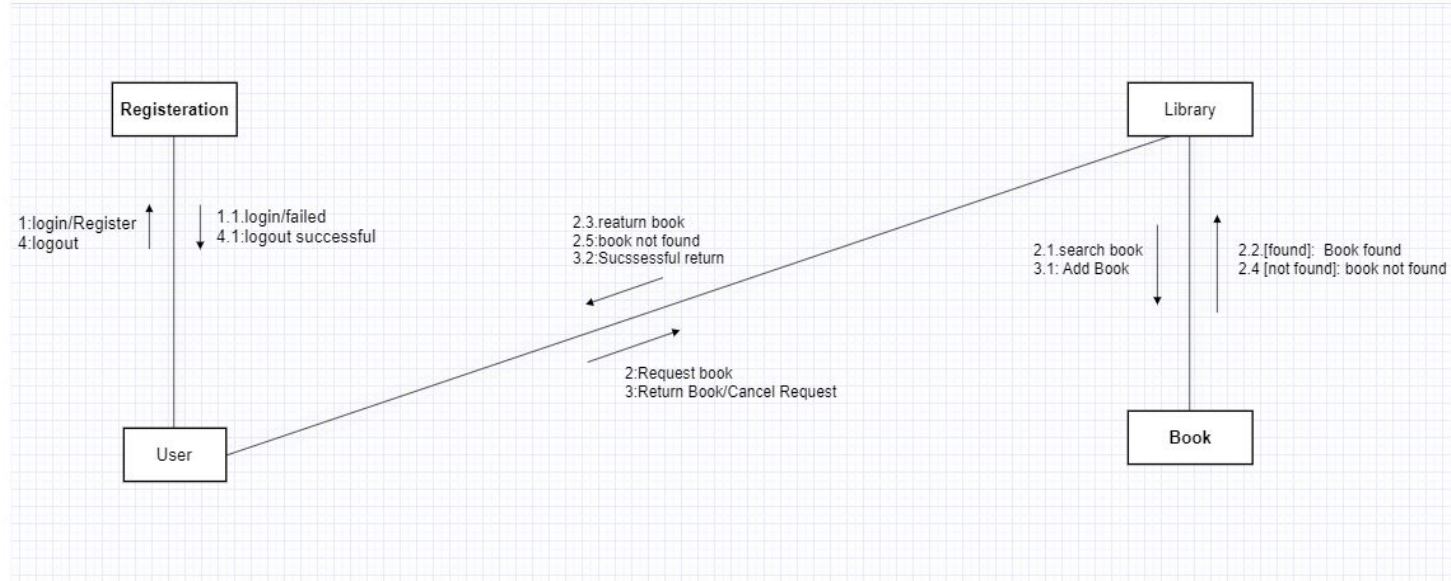
Sequence Diagram

Gliffy / Sequence Diagram, v2



Collaboration Diagram

Gliffy / Collaboration Diagram, v1





Implementation

Librarian.cs

```
1 reference  
public void requestBookFromVendor(Vendor vendor)  
{  
    List<Book> books = vendor.SupplyBooks(RequiredBooks);  
    Library.addbooks(books);  
}
```

Vendor.cs

```
2 reference  
public List<Book> SupplyBooks(List<string> bookName)  
{  
    List<Book> books = SearchBooks(bookName);  
    return books;  
}
```

Vendor.cs

```
1 reference
public List<Book> SearchBooks(List<string> bookName)
{
    List<Book> books = new List<Book>();
    for (int i = 0; i < bookName.Count; i++)
    {
        if(AvailableBooks.ContainsKey(bookName[i]))
        {
            Console.WriteLine($"{bookName[i]} book is found");
            books.Add(AvailableBooks[bookName[i]]);
        }
        else
        {
            Console.WriteLine($"{bookName[i]} book is not found");
        }
    }
    return books;
}
```

GLIFFY

**Advantages
&
Disadvantages**

Advantages:

- ✓ Simple and Easy to use.
- ✓ Low cost & Low Price
- ✓ Free trial
- ✓ Online
- ✓ Support latest UML version
- ✓ Allow Sharing and Editing

DisAdvantages:

- ✗ Missing Figures
- ✗ Doesn't support automatic code generating.
- ✗ Doesn't Support Reverse Engineering.
- ✗ grid Not Flexible

Number of UML diagrams that it supports:

UML Structure diagram like => class - object - Package - Composite -
Component - Deployment - Profile

UML Behavioral diagram => Use Case - Activity - State Machine

UML Interaction diagram => Sequence - Communication - Timing

References:

<https://www.gliffy.com/blog/uml-2-5-diagram-types-and-templates>



Thanks!

